

User Manual

Control Panel

Handles

Omega Brackets

Front View

Side View

Edition Notes

This user manual covers the description, safety precautions, installation, programming, operation, and maintenance of the Q-Wash™ 419Z-LED. CHAUVET® released this edition of the Q-Wash™ 419Z-LED user manual in August 2013.

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Document Printing

For better results, print this document in color, on letter size paper (8.5 x 11 in), double-sided. If using A4 paper (210 x 297 mm), configure your printer to scale the content accordingly.

Intended Audience

Any person in charge of installing, operating, and/or maintaining this product should completely read through the guide that shipped with the product, as well as this manual, before installing, operating, or maintaining this product.

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Author	Date	Editor	Date
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Quad-Color LEDs
Power Switch

Fuse
Power In/Out
Rear View

Top View

Data In/Out

13.43 in

341 mm

14.49 in

368 mm

11.69 in

297 mm

10.63 in

270 mm

3.86 in

98 mm

8.86 in

225 mm

13.31 in

338 mm

Clamp

Safety Cable

Floor Mounting

Overhead Mounting

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1. Before You Begin

What Is Included

Q-Wash™ 419Z-LED	Safety Cable
powerCON® power cord	Warranty card
Omega bracket with mounting hardware	Quick Reference Guide

Claims

Carefully unpack the product immediately and check the box to make sure all the parts are in the package and are in good condition. If the box or the contents (the product and included accessories) appear damaged from shipping or show signs of mishandling, notify the carrier immediately, not CHAUVET®. Failure to report damage to the carrier immediately may invalidate your claim. In addition, keep the box and contents for inspection. For other issues, such as missing components or parts, damage not related to shipping, or concealed damage, file a claim with CHAUVET® within 7 days of delivery.

Manual Conventions

Convention	Meaning
1~512	A range of values in the text
50/60	A set of mutually exclusive values in the text
<SET>	A button on the product's control panel
Settings	A product function or a menu option
MENU>Settings	A sequence of menu options
1~10	A range of menu values from which to choose in a menu
Yes/No	A set of two mutually exclusive menu options in a menu
ON	A unique value to be entered or selected in a menu

Symbols

Symbols Meaning

Critical installation, configuration, or operation information. Failure to comply with this information may cause the product not to work, damage third-party equipment, or cause harm to the operator.

Important installation or configuration information. Failure to comply with this information may keep the product from working.

Useful information.

The term “DMX” used throughout this manual refers to the USITT DMX512-A digital data transmission protocol.

Safety Notes

Read all the following Safety Notes before working with this product. These notes include important information about the installation, usage, and maintenance of this product.

This product contains no user-serviceable parts. Any reference to servicing in this user manual will only apply to properly trained CHAUVET® certified technicians. Do not open the housing or attempt any repairs.

All applicable local codes and regulations apply to proper installation of this product.

Personal Safety

Avoid direct eye exposure to the light source while the product is on.
Always disconnect this product from power before servicing.
Always connect this product to a grounded circuit to avoid the risk of electrocution.
Do not touch this product’s housing when operating because it may be hot.

Mounting and Rigging

This product is for indoor use only! To prevent risk of fire or shock, do not expose this product to rain or moisture.
When hanging this product, always secure to a fastening device using a safety cable (included).
Always carry this product using the built-in handles.
Do not leave any flammable material within 50 cm of this product while operating.

Power and Wiring

Always make sure you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product’s specification label.

Never connect this product to a dimmer pack or rheostat.
Never disconnect this product by pulling or tugging on the power cable.

Operation

Do not operate this product if you see damage on the housing, lenses, or cables. In any of these cases, have the damaged parts replaced by an authorized technician at once.

Do not cover the ventilation slots when the product is operating to avoid internal overheating.

The maximum ambient temperature (Ta) is 104 °F (40 °C). Do not operate this product at a higher temperature.

In case of a serious operating problem, stop using this product immediately!

In the unlikely event that your CHAUVET® product may require service, contact CHAUVET® Technical Support.

Expected LED Lifespan

LEDs gradually decline in brightness over time, mostly because of heat. Packaged in clusters, LEDs exhibit higher operating temperatures than in ideal, single-LED conditions. For this reason, using clustered LEDs at their fullest intensity significantly reduces the LEDs' lifespan. Under normal conditions, this lifespan can be 40,000 to 50,000 hours. If extending this lifespan is vital, lower the operating temperature by improving the ventilation around the product and reducing the ambient temperature to an optimal operating range. In addition, limiting the overall projection intensity may also help to extend the LEDs' lifespan.

2. Introduction

Description

The Q-Wash™ 419Z-LED is a high-power quad-color RGBW LED, moving head wash product. This product consists of a base section and a moving yoke with a pan range of up to 540°. The moving head, which has a tilt range of 270°, contains the 19 quad-color RGBW LEDs and the zoom motors. The base section has the 3- and 5-pin DMX input and output sockets, the Neutrik® powerCON® input connector, and the LCD-based control panel.

Features

- 19 LEDs quad-color RGBW (15 W)
- Smooth Zoom and Pan/Tilt movement
- 3 zones of LED control
- 16 bit control of master dimmer and individual colors
- Flicker-free operation

Overview

Dimensions

3. Setup

AC Power

The Q-Wash™ 419Z-LED has an auto-ranging power supply that works with an input voltage range of 100~240 VAC, 50/60 Hz. To determine the power requirements for each Q-Wash™ 419Z-LED, refer to the label affixed to the product. You can also refer to the [Technical Specifications](#) section in this manual.

The listed current rating indicates the maximum current draw during normal operation. For more information, you may download *Sizing Circuit Breakers* from the CHAUVET® website: www.chauvetpro.com.

Always connect this product to a protected circuit with an appropriate electrical ground to avoid the risk of electrocution or fire.

Never connect this product to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel serves only as a 0 to 100% switch.

AC Plug

The Q-Wash™ 419Z-LED comes with a power input cord terminated with a Neutrik® powerCON® A connector and an Edison power cord adapter. If the power cord adapter that came with your product has no plug or you need to change the Edison plug, use the table below to wire the new plug.

Connection	Wire (U.S.)	Wire (Europe)	Screw Color
AC Live	Black	Brown	Yellow or Brass
AC Neutral	White	Blue	Silver
AC Ground	Green/Yellow	Green/Yellow	Green

Power Linking

The Q-Wash™ 419Z-LED supports power linking. You can power link up to:
5 products at 120 VAC,
9 products at 208 VAC, or
9 products at 230 VAC

This product comes with a power input cord. This product does not come with a power linking cable; however, a power linking cable is available as an option.

Make sure to disconnect the product's power cord before replacing a blown fuse. Always replace the blown fuse with another of the same type and rating.

Fuse Replacement

The stand-alone battery charger has no external fuse.

However, the flight case/charger comes with a replaceable fuse (T 6.3 A @ 250 V).

To change the fuse on the flight case/charger, do the following:

1. Disconnect the product from the power outlet.

2. With a Phillips #2 head screwdriver, unscrew

the fuse holder cap from its housing.

3. Remove the blown fuse and replace it with a good fuse of the same type and rating (T 6.3 A @ 250 V).

4. Screw the fuse holder cap back in its place and reconnect power.

DMX Linking

You can link the Q-Wash™ 419Z-LED to a DMX controller using a standard DMX serial connection. If using other DMX compatible products with the Q-Wash™ 419Z-LED, you can control each individually with a single DMX controller.

DMX Modes

The Q-Wash™ 419Z-LED uses the standard DMX data connection for its **PERSON1**, **PERSON2**, **PERSON3**, **PERSON4**, and **PERSON5** DMX modes.

Refer to the [Introduction](#) section for a brief description of these modes.

Refer to the [Operation](#) section to learn how to configure the Q-Wash™ 419Z-LED to work in these modes.

The [DMX Values](#) section provides you with detailed information regarding the DMX modes.

Master/Slave Connectivity

The Master/Slave mode allows a Q-Wash™ 419Z-LED (master product) to control one or more products (slave products) without a DMX controller.

One Q-Wash™ 419Z-LED becomes the master product either when running in static (MANUAL > MANUAL) mode or when using the automatic (STAND ALONE > RUN > AUTO 1~2) or customizable (STAND ALONE > RUN > CUSTOM) programs.

In addition, you must configure each of the slave products (via control panel) to operate in Slave (STAND ALONE > RUN > SLAVE) mode. During Master/Slave operation, the slave products will operate in unison with the master product.

For more information, see [Menu Map](#).

Do not connect a DMX controller to products operating in Master/Slave mode. The DMX controller signals may interfere with the signals from the master product.

The [Operation](#) section of this manual provides detailed instructions on how to configure the Master and Slave products.

If you need more information about DMX standards, Master/Slave connectivity, or the DMX cables needed in order to link the product to a DMX controller, download the *DMX Primer* from the CHAUVET® website:

www.chauvetpro.com.

Mounting

Before mounting this product, read and follow the [Safety Notes](#).

Orientation

Always mount this product in a safe position and make sure there is adequate room for ventilation, configuration, and maintenance.

Rigging

CHAUVET® recommends using the following general guidelines when mounting this product.

When selecting an installation location, consider easy access to this product for operation, programming adjustments, and routine maintenance.

Make sure to mount this product away from any flammable material as indicated in the [Safety Notes](#).

Never mount in places where rain, high humidity, extreme temperature changes, or restricted ventilation may affect the product.

If hanging this product, make sure that the mounting location can support the product's weight. See the [Technical Specifications](#) for the weight-bearing requirements of this product.

When hanging this product, always secure to a fastening device using a safety cable (included).

Procedure

The Q-Wash™ 419Z-LED comes with two omega brackets to which you can attach clamps. You must supply your own clamps and make sure that they are capable of supporting the weight of this product. You will have to use two mounting points per product. The omega brackets also serve to anchor this product to a panel. For floor standing operation, this product has built-in rubber feet..

Mounting Diagram

4. Operation

Control Panel Description

Button	Function
MENU	Exits from the current menu or function Enables the currently displayed menu or sets the currently selected value in to the current function
ENTER	
UP	Navigates upward through the menu options and increases the numeric value when in a function
DOWN	Navigates downward through the menu options and decreases the numeric value when in a function

Control Options

You can set the Q-Wash™ 419Z-LED starting address in the 001 to 512 DMX range. This enables control of up to 15 products in the 34-channel **PERSON5** personality.

Programming

Refer to the [Menu Map](#) to understand the menu options. The menu map shows the main level and a variable number of programming levels for each option.

To go to the desired main level, press **MENU** repeatedly until the option shows on the display. Press **ENTER** to select. This will take you to the first programming level for that option.

To select an option or value within the current programming level, press **UP** or **DOWN** until the option shows on the display. Press **ENTER** to select. In this case, if there is another programming level, you will see that first option, or you will see the selected value.

Press **MENU** repeatedly to exit to the previous main level.

Control Panel Display

The Q-Wash™ 419Z-LED allows you to customize what is displayed on the products control panel screen.

1. Choose the screen mode as follows.
 - a. Go to **SETTINGS > PERFORM > HOME SCREEN**.
 - b. Select **DMX** to display only the DMX address or **NAME** to display what is programmed in the **CONTENT** level.
2. Enter the text to be displayed on the screen as follows.
 - a. Go to **SERVICE > CONTENT**.
 - b. Select **DISPLAY1**.
 - c. Use the **UP** and **DOWN** keys to enter up to 16 characters of text.
 - d. Select **DISPLAY2**.
 - e. Use the **UP** and **DOWN** keys to enter up to 16 characters of text.

Display Backlight

1. Select **SETTINGS > PERFORM > DISPLAY ON**.
 - a. Select **LONG**, **SHORT**, or **ALWAYS**.

Display Invert

1. Select **SETTINGS > PERFORM > DISPLAY INVERT**.
 - a. Select **INVERT** to reverse the display direction or **NORM** to use the normal display direction.

Control Panel Lock

This setting enables you to activate or disable the control panel lock, which keeps non-authorized personnel from changing the product's settings.

To secure the **SETTINGS** level only:

1. Go to **SERVICE > ACCESS > SETTINGS LOCK**.
 - a. Select **ON** to require the password to access the level or **OFF** to allow open access.

To secure the **SERVICE** level only:

1. Go to **SERVICE > ACCESS > SERVICE LOCK**.
 - a. Select **ON** to require the password to access the level or **OFF** to allow open access.

To secure all levels of the control panel:

1. Go to **SETTINGS > DISPLAY LOCK**.
 - a. Select **ON** to require the password to the control panel or **OFF** to allow open access.

When the control panel lock is active, the product will prompt you to enter the password after 30 seconds of control panel inactivity or after turning on the product.

Password

After being prompted to enter the password:

Press **<UP>**, **<DOWN>**, **<UP>**, **<DOWN>**, **<ENTER>**

DMX Personality

This setting allows you to choose a particular DMX personality.

1. Go to the **PERSON** main level.
2. Select the desired personality (**PERSON1**, **PERSON2**, **PERSON3**, **PERSON4**, or **PERSON5**).

For the highest starting address you can select for each personality, see the [DMX Values](#) section. Verify that the starting addresses on the products do not overlap due to the new personality setting.

DMX Control

In this mode, each product will respond to a unique starting address from the DMX controller. All products with the same starting address will respond in unison.

1. Select a DMX personality as shown in [DMX Personality](#).
2. Set the running mode:
 - a. Go to the **STAND ALONE > RUN** main level.
 - b. Select the **DMX 512** programming level.
3. Set the starting address:
 - a. Go to **ADDRESS** main level.
 - b. Select the starting address (**001~512**).

The highest recommended starting address for each DMX mode are as follows:

DMX Mode	DMX Address	DMX Mode	DMX Address
----------	-------------	----------	-------------

PERSON1	503	PERSON4	492
PERSON2	492	PERSON5	479
PERSON3	505		

Loss of Signal Setting

This setting controls how the product will respond when the DMX signal is lost.

1. Go to the **SETTINGS > PERFORM** level, and select **DMX ERROR**.
 - a. Select **SAVE** to make the product use the last command used when the signal is lost.
 - b. Select **BLACK** to turn off the all the LEDs when the signal is lost.

Static Control

The Static Color mode allows for permanent RGBW color mixing without a DMX controller.

1. Go to the **MANUAL > MANUAL**.
2. Select **DIMMER**.
 - a. Set the intensity value (**000~255**).
3. Select **RED, GREEN, BLUE, or WHITE**.
 - a. Select the color value (**000~255**).
 - b. Repeat for the other colors.
4. Select **PAN or TILT**.
 - a. Set the position value (**000~255**).
 - b. Repeat for the other position.
5. Select **STROBE**.
 - a. Set the frequency value (**000~255**).
6. Select **ZOOM**.
 - a. Set the angle value (**000~255**).

Auto/Custom Programs

Auto programs allow for dynamic RGBW color mixing without a DMX controller.

1. Go to **STAND ALONE > RUN**.
2. Select the desired auto (**AUTO1, AUTO2**), test (**TEST**), or custom program (**CUSTOM**).

You cannot edit any of the auto or test programs (AUTO1, AUTO2, or TEST).

Edit Custom Programs

This setting allows the programming of up to 49 steps in the **CUSTOM** running mode.

1. Go to **STAND ALONE > EDIT**.
2. Select **STEP**.
3. Set the program step (**01~49**).
 - a. Select **PAN** or **TILT**.
 - i. Set the position value (**000~255**).
 - ii. Repeat for the other position
 - b. Select **DIMMER**.
 - i. Set the intensity value (**000~255**).
 - c. Select **RED, GREEN, BLUE, or WHITE**.
 - i. Select the color value (**000~255**).
 - ii. Repeat for the other colors.
 - d. Select **STROBE**.
 - i. Set the frequency value (**000~255**).
 - e. Select **ZOOM**.
 - i. Set the angle value (**000~255**).
 - f. Select **TIME**.
 - i. Select the step duration (**000~255**).
 - g. Repeat for the other steps
4. Select **USE**.
 - a. Select **YES** to save the program or **NO** to discard.

Master/Slave

The Master/Slave mode allows a group of Q-Wash™ 419Z-LEDs (slave products) to simultaneously duplicate the output of another Q-Wash™ 419Z-LED (master product) without a DMX controller.

1. Set each of the slave products:
 - a. Go to **STAND ALONE > RUN**.
 - b. Select **SLAVE**.
2. Set the master product:
 - a. Set the running mode to **DMX** (see [DMX Control](#)).
 - b. Select an Auto, Custom, or Static program as explained in [Auto/Custom Programs](#) or [Static Control](#).

The master product is the one that runs a program whether in Auto, Custom, or Static Color mode.

Do not connect a DMX controller to the products configured for Master/Slave operation. The DMX controller may interfere with signals from the master product.

The master product should be the first product in the daisy chain.

Fixture Cloning

The Q-Wash™ 419Z-LED gives you 3 ways in which to transfer the settings from 1 Q-Wash™ 419Z-LED to other Q-Wash™ 419Z-LED products when hooked up via DMX daisy chain configuration.

To transfer the **CUSTOM** program only:

1. Go to **STAND ALONE > SEND**.
 - a. Select **YES** to send the program or **NO** to cancel.

To transfer the **CONTENT** program (display text) only:

2. Go to **SERVICE > CONTENT > SEND**.
 - a. Select **YES** to send the program or **NO** to cancel.

To transfer all of the product's software settings:

3. Go to **SETTINGS > SEND**.
 - a. Select **YES** to send the program or **NO** to cancel.

Do not upload the data from a Q-Wash™ 419Z-LED to a different product. The other product may become inoperative.

Fan Control

The Q-Wash™ 419Z-LED allows you to adjust the fan speed of the product to allow for quiet operation.

1. Go to **SETTINGS > PERFORM > FANS**.
 - a. Select **SLOW**, **NORMAL**, **FAST**, or **AUTO**.

In AUTO mode, the product controls the speed of the fan to allow for the most efficient cooling while allowing maximum output. To prevent overheating, using any other fan speed may reduce product output.

Pan/Tilt Speed

1. Select **SETTINGS > PERFORM > PT SPEED**.
 - a. Select **FAST** for fast movement or **SLOW** to use the normal speed.

Reverse Pan Direction

1. Select **SETTINGS > PERFORM > PAN INVERT**.
 - a. Select **INVERT** to reverse the pan direction or **NORM** to use the normal pan direction.

Reverse Tilt Direction

1. Select **SETTINGS > PERFORM > TILT INVERT**.
 - a. Select **INVERT** to reverse the tilt direction or **NORM** to use the normal tilt direction.

Optics Speed

1. Select **SETTINGS > PERFORM > OPTICS SPEED**.
 - a. Select **FAST** for fast movement or **SLOW** to use the normal speed.

Reverse Dimmer Direction

1. Select **SETTINGS > PERFORM > DIM INVERT**.
 - a. Select **INVERT** to reverse the dimmer direction or **NORM** to use the normal dimmer direction.

Head Motion Black Out

1. Select **SETTINGS > PERFORM > BLACKOUT**.
 - a. Select **INSTANT** to black out the output when the head tilts or pans, or **DELAY** to keep the output on while the head moves.

Color Settings

The Color setting determines how the product generates the white color based on various RGB settings.

1. Go to the **SETTINGS > PERFORM** main level.
2. Select **COLOR**.
3. Select **OFF**, **RGBtoW**, or **UC**.

OFF: When all the RGB faders are set to **255**, the output is maximum, although the resulting white color may not be balanced.

RGBtoW: When all the RGB faders are set to **255**, the resulting output is defined by the configured White color (see [White Calibration](#)).

UC: When all the RGB faders are set to **255**, the output matches that of less efficient products (Universal Color).

Dimmer Curves

This setting provides you with four options to simulate the dimming curve of an incandescent light product.

1. Go to the **SETTINGS > PERFORM** main level.
2. Select **DIMMER**.
3. Select the desired dimmer curve (**OFF**, **DIM1**, **DIM2**, **DIM3**, or **DIM4**).

OFF The output is proportional (linear) to the dimmer and RGBW channel values.

The output follows the dimmer and RGBW channel values based on the **DIM1~4:** corresponding dimmer curve, being DIM1 the fastest and DIM4 the slowest.

Dimmer Curve Settings

This setting allows you to select the dimmer curve shape using the red, green, blue, white, and dimmer faders.

1. Go to the **SETTINGS > PERFORM** main level.
2. Select **CURV**.
3. Select the desired dimmer curve (**OFF**, **CURV1**, **CURV2**, or **CURV3**).

OFF This output is proportional (linear) to the Dimmer and RGBW channel values.

This output follows the dimmer and RGBW channel values based on the **CV1~3** corresponding dimmer curve, being CURV1 the fastest and CURV3 the slowest.

For optimum control of the 16-bit dimming channels in the PERSON2 and PERSON5 personalities, be sure that both dimming curves in **SETTINGS > PERFORM > DIMMER** and **SETTINGS > PERFORM > CURV** are set to **OFF**

Zoom Position Adjust

This setting adjusts the position of the zoom lens outside the normal limits to allow for tighter beam adjustment at longer distances.

1. Select **SETTINGS > PERFORM > ZOOM POS**.
 - a. Select **BOOST** to adjust the zoom lens for better focusing at longer distances or **NORMAL** to use the factory settings.

Limit Pan/Tilt Range

1. Select **SETTINGS > RANGE**.
2. To set the start and end points of the pan and tilt ranges:
 - a. Select **P.START** and set the pan starting point between **000~255**.
 - b. Select **P.END** and set the pan ending point between **000~255**.
 - c. Select **T.START** and set the tilt starting point between **000~255**.
 - d. Select **T.END** and set the tilt ending point between **000~255**.
3. Select **USE**.
 - a. Select **YES** to activate the changes or **NO** to cancel.

Offset Calibration

This option allows you to calibrate the starting points of the Pan, Tilt, and Zoom motors.

1. Select **SERVICE > CALIB.M**.
 - a. Select **PAN**.
 - i. Set the position value (**000~255**).
 - b. Select **TILT**.
 - i. Set the position value (**000~255**).
 - c. Select **Zoom**.
 - i. Set the position value (**000~255**).

White Calibration

This setting allows you to select and edit the temperature of the white colors used in channel 14 (Macros) when in the **PERSON2** mode.

1. Select **SERVICE > CALIB.C**.
2. Select **3200K, 3400K, 4200K, 4900K, 5600K, 5900K, 6500K, 7200K, 8000K, 8500K, or 10000K**.
3. Select **RED, GREEN, BLUE, or WHITE**.
 - a. Set the position value (**000~255**).
 - b. Repeat for the other colors.
4. Repeat for other color temperatures.

Calibrating the White Color

This setting allows you to calibrate the white color when **SETTINGS > PERFORM > COLOR** is set to **RGBtoW** and the DMX controller's red, green, and blue faders are set to "255".

1. Select **SERVICE > CALIB.C**.
2. Select **RGBTOW**.
3. Select **RED, GREEN, or BLUE**.
 - a. Set the position value (**000~255**).
 - b. Repeat for the other colors.

When selecting **SERVICE > CALIB.C > RGBTOW**, you will only be able to define the values of red, green, and blue.

The values of **RED, GREEN, and BLUE** configured from **SERVICE > CALIB.C > RGBTOW** will define the color temperature shown when the RGB faders are set to "255" if **SETTINGS > PERFORM > COLOR > RGBtoW** is active.

Product Reset Control

This option allows the product to be reset from the DMX controller or from the display only.

1. Select **SETTINGS > PERFORM > DMX RESET**.
 - a. Select **DMX** to reset the product from a DMX controller or **DISPLAY** to reset the product from the control panel only.

Reset

The Q-Wash™ 419Z-LED gives you 3 different levels to reset the product.
To reset the Pan and Tilt motors only:

1. Go to **MANUAL > RESET > PT.RESET**.
- a. Select **YES** to reset or **NO** to exit.

To reset the Zoom motor only:

2. Go to **MANUAL > RESET > OPTIC RESET**.
- a. Select **YES** to reset or **NO** to exit.

To reset the all the motors:

3. Go to **MANUAL > RESET > ALL RESET**.
- a. Select **YES** to reset or **NO** to exit.

Custom Program Reset

This option allows you to reset only the custom programs back to the factory defaults.

1. Go to **SERVICE > ServiceRecovery**.
- a. Enter the Password as described in [Password](#).

Reset to Factory Default

This option allows you to reset all the product's settings to the factory defaults.

1. Go to **SETTINGS > DEFAULT**.
- a. Enter the Password as described in [Password](#).

Software Version

1. Go to **INFO > SOFTWARE**.

Menu Map

Main Level	Programming Levels	Description
ADDRESS	000-512	Sets the DMX starting address
PERSON	PERSON1	10-Channel mode
	PERSON2	21-Channel mode
	PERSON3	8-Channel mode
	PERSON4	21-Channel mode
	PERSON5	34-Channel mode

SETTINGS	PERFORM	FANS	SLOW	Selects the fan's operation mode.
			NORM	
			FAST	
			AUTO	
		PT SPEED	FAST	Defines the speed of the pan/tilt
			SLOW	
		PAN INVERT	NORM	Defines the direction of the pan fader
			INVERT	
		TILT INVERT	NORM	Defines the direction of the tilt fader
			INVERT	
		OPTICS SPEED	FAST	Defines the speed of the zoom
			SLOW	
		BLACKOUT	DELAY	Activates the move-in black delay (3 sec)
			INSTANT	
		DIMMER	DIM4	Slow (DIM4) to fast (DIM1) dimmer curves
			DIM3	
			DIM2	
			DIM1	
			OFF	Linear dimmer/no dimmer function
		CURV	CURV3	Slow (CURV3) to fast (CURV1) dimmer curves
			CURV2	
			CURV1	
			OFF	No dimmer

Menu Map (Cont.)

Main Level	Programming Levels	Description
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SETTINGS (cont.)	PERFORM (cont.)	DIM INVERT	NORM	Defines the direction of the dimmer fader
		COLOR	INVERT UC	Universal color balance
			RGBtoW OFF	RGB set to “255” = balanced white RGB set to “255” = max. output
		DMX ERROR	SAVE	Continues with last command upon loss of DMX control
			BLACK	Blacks out fixture upon loss of DMX signal
		DMX RESET	DMX	The DMX controller resets the product
			DISPLAY	The control panel resets the product
		DISPLAY ON	LONG	Determines how long the backlight of the display will stay on after last command button pressed
			SHORT	
			ALWAYS	
		HOME SCREEN	DMX	Displays DMX address
			NAME	Displays what is programmed via SERVICE > CONTENT level
		DISPLAY INVERT	NORM	Allows the display on the control panel to be inverted
			INVERT	
		ZOOM POS.	NORMAL	Zoom lens is set to factory default
			BOOST	Sets the zoom lens to perform better at longer distances

RANGE	P.START	000~255	Sets the pan start point (pan range)
	P.END		Sets the pan end point (pan range)
	T.START		Sets the tilt start point (tilt range)
	T.END		Sets the tilt end point (tilt range)
	USE	NO	Activates the changes
		YES	
DISPLAY LOCK	OFF		Activates/deactivates the main level password
	ON		
DEFAULT	**** (Enter Password)		Resets fixture to factory default settings
SEND	NO		Sends ALL settings of the 1st product to all other Q-Wash™ 419Z-LEDs connected to the DMX output
	YES		

Menu Map (Cont.)

Main Level	Programming Levels		Description
STAND ALONE	RUN	DMX 512	Selects DMX running mode

AUTO1	Selects the first automatic program
AUTO2	Selects the second automatic program
CUSTOM	Selects a user customizable program
TEST	Starts the product's test sequence
SLAVE	Selects the Slave running mode

	EDIT	STEP	01~49	Selects the program step
		PAN	000~255	Selects the pan position
		TILT		Selects the tilt position
		RED		Combines red, green, blue, and white to obtain a custom color
		GREEN		
		BLUE		
		WHITE		
		DIMMER		Selects the dimmer value
		STROBE		Selects the strobe frequency
		ZOOM		Select the zoom position
		TIME		Selects the step duration
		USE	NO	Activates the changes
			YES	
	SEND		NO	Sends CUSTOM settings of the 1st product to all other Q-Wash™ 419Z-LEDs connected to the DMX output
			YES	
INFO	SOFTWARE	V.X.X		Shows version of software installed
MANUAL	RESET	ALL RESET	NO	Resets fixture to home settings
			YES	
		PT.RESET	NO	Resets the Pan/Tilt to home settings
			YES	
		OPTIC	NO	Resets the Zoom to home settings
		RESET	YES	

Menu Map (Cont.)

Main Level	Programming Levels	Description
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MANUAL (cont.)	MANUAL	PAN	000~255	Allows manual control of all settings from control panel
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TILT
RED
GREEN
BLUE
WHITE
DIMMER
STROBE
ZOOM

SERVICE	CALIB.M	PAN	000~255	Calibrates the start position of the motors
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TILT
ZOOM

CALIB.C	3200K	RED	000~255	Sets color temperature for White 1
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GREEN
BLUE
WHITE

3400K	RED	Sets color temperature for White 2
4200K	GREEN BLUE WHITE RED	Sets color temperature for White 3
4900K	GREEN BLUE WHITE RED	Sets color temperature for White 4
5600K	GREEN BLUE WHITE RED	Sets color temperature for White 5
5900K	GREEN BLUE WHITE RED	Sets color temperature for White 6
	GREEN BLUE WHITE	

Menu Map (Cont.)

Main Level	Programming Levels	Description
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SERVICE (cont.)	CALIB.C (cont.)	6500K	RED	000~255	Sets color temperature for White 7
		7200K	GREEN BLUE WHITE RED		Sets color temperature for White 8
		8000K	GREEN BLUE WHITE RED		Sets color temperature for White 9
		8500K	GREEN BLUE WHITE RED		Sets color temperature for White 10
		10000K	GREEN BLUE WHITE RED		Sets color temperature for White 11
		RGBTOW	GREEN BLUE WHITE RED		Defines the color temperature used when COLOR is set to RGBtoW
			GREEN		

		BLUE	
ACCESS	SETTINGS LOCK	OFF	Activates/deactivates the SETTINGS main level password
		ON	
	SERVICE LOCK	OFF	Activates/deactivates the SERVICE main level password
		ON	
CONTENT	DISPLAY1	*****	Allows 16 characters of text to be displayed on control panel
	DISPLAY2	*****	
	SEND	NO	Sends CONTENT settings of the 1st product to all other Q-Wash™ 419Z-LEDs connected to the DMX output
		YES	
Service Recovery	**** (Enter Password)	Resets all custom modes to default values	

DMX Values

PERSON1	Channel	Function	Value		Percent/Setting
	1	Pan	000	255	0~100%
	2	Tilt	000	255	0~100%
	3	Red	000	255	0~100%
	4	Green	000	255	0~100%
	5	Blue	000	255	0~100%
	6	White	000	255	0~100%
	7	Dimmer	000	255	0~100%
	8	Strobe	000	009	No Function
			010	255	0~100%
	9	Zoom	000	255	0~100%
	10	Control	000	019	No Function
			020	039	Pan/tilt black activation
			040	059	Pan/tilt black deactivation
			060	079	Automatic fan speed
			080	099	Slow fan speed
			100	119	Normal fan speed
			120	139	High fan speed Auto program 1 (3 s activation delay)
			140	149	Auto program 2 (3 s activation delay)
			150	159	Test (3 s activation delay)
			160	169	Custom program (3 s activation delay)
			170	179	No Function
			180	199	Reset (3 s activation delay)
			200	219	No Function
			220	235	DIM0 (3 s activation delay)
			236	239	DIM1 (3 s activation delay)
			240	243	DIM2 (3 s activation delay)
			244	247	DIM3 (3 s activation delay)
			248	251	DIM4 (3 s activation delay)
			252	255	

DMX Values (Cont.)

PERSON2	Channel	Function	Value	Percent/Setting
	1	Pan	000 255	0~100%
	2	Pan Fine	000 255	0~100%
	3	Tilt	000 255	0~100%
	4	Tilt Fine	000 255	0~100%
	5	Pan/Tilt Speed	000 255	0~100%
	6	Red	000 255	0~100%
	7	Red Fine	000 255	0~100%
	8	Green	000 255	0~100%
	9	Green Fine	000 255	0~100%
	10	Blue	000 255	0~100%
	11	Blue Fine	000 255	0~100%
	12	White	000 255	0~100%
	13	White Fine	000 255	0~100%
	14	Color/White Macro	000 010	No Function
			011 030	R: 100% G: 0~100% B: 0
			031 050	R: 100%~0 G: 100% B: 0
			051 070	R: 0 G: 100% B: 0~100%
			071 090	R: 0 G: 100%~0 B: 100%
			091 110	R: 0~100% G: 0 B: 100%
			111 130	R: 100% G: 0 B: 100%~0
			131 150	R: 100% G: 0~100% B: 0~100%
			151 170	R: 100%~0 G: 100%~0 B: 100%
			171 200	R: 100% G: 100% B: 100% W:100%
			201 205	White 1
			206 210	White 2
			211 215	White 3
			216 220	White 4
			221 225	White 5
			226 230	White 6
			231 235	White 7
			236 240	White 8
			241 245	White 9
			246 250	White 10
			251 255	White 11

DMX Values (Cont.)

PERSON2 (cont.)	Channel	Function	Value	Percent/Setting
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15	Auto Rings	000	No Function
		009	Static Ring 1
		010	Static Ring 2
		019	Static Ring 3
		020	Ring Effect 1
		029	Ring Effect 2
		030	Ring Effect 3
		039	Ring Effect 4
		040	Ring Effect 5
		049	Ring Effect 6
		050	Ring Effect 7
		059	Ring Effect 8
		060	Ring Effect 9
		069	Ring Effect 10
		070	Ring Effect 11
		079	Ring Effect 12
		080	Ring Effect 13
		089	Ring Effect 14
		090	Static Ring 4
		099	Static Ring 5
		100	Static Ring 6
		109	Static Ring 7
		110	Static Ring 8
		119	Static Ring 9
		120	Static Ring 10
		129	RGBW: 100%
		130	
		139	
		140	
		149	
		150	
		159	
		160	
		169	
		170	
		179	
		180	
		189	
		190	
		199	
		200	
		209	
		210	
		219	
		220	
		229	
		230	
		239	
		240	
		249	
		250	
		255	
16	Auto Speed	000	0~100%
		255	
17	Dimmer	000	0~100%
		255	
18	Dimmer Fine	000	0~100%
		255	
19	Strobe	000	No Function
		009	00~20 Hz
		010	
		255	

20	Zoom	000	0~100%
		255	
21	Control	000	No Function
		019	Pan/tilt black activation
		020	Pan/tilt black deactivation
		039	Automatic fan speed
		040	Slow fan speed
		059	Normal fan speed
		060	High fan speed Auto program 1 (3 s activation delay)
		079	Auto program 2 (3 s activation delay)
		080	Test (3 s activation delay)
		099	Custom program (3 s activation delay)
		100	No Function
		119	Reset (3 s activation delay)
		120	No Function
		139	DIM0 (3 s activation delay)
		140	DIM1 (3 s activation delay)
		149	DIM2 (3 s activation delay)
		150	DIM3 (3 s activation delay)
		159	DIM4 (3 s activation delay)
		160	
		169	
		170	
		179	
		180	
		199	
		200	
		219	
		220	
		235	
		236	
		239	
		240	
		243	
		244	
		247	
		248	
		251	
		252	
		255	

DMX Values (Cont.)

PERSON3	Channel	Function	Value	Percent/Setting
	1	Pan	000 255	0~100%
	2	Tilt	000 255	0~100%
	3	Hue	000 255	0~100%
	4	Saturation	000 255	0~100%
	5	Value	000 255	0~100%
	6	Strobe	000 009	No Function
			010 255	00~20 Hz
	7	Zoom	000 255	0~100%

8	Control	000	019	No Function
		020	039	Pan/tilt black activation
		040	059	Pan/tilt black deactivation
		060	079	Automatic fan speed
		080	099	Slow fan speed
		100	119	Normal fan speed
		120	139	High fan speed Auto program 1 (3 s activation delay)
		140	149	Auto program 2 (3 s activation delay)
		150	159	Test (3 s activation delay)
		160	169	Custom program (3 s activation delay)
		170	179	No Function
		180	199	Reset (3 s activation delay)
		200	219	No Function
		220	235	DIM0 (3 s activation delay)
		236	239	DIM1 (3 s activation delay)
		240	243	DIM2 (3 s activation delay)
		244	247	DIM3 (3 s activation delay)
		248	251	DIM4 (3 s activation delay)
		252	255	

DMX Values (Cont.)

PERSON4	Channel	Function	Value	Percent/Setting
	1	Pan	000 255	0~100%
	2	Pan Fine	000 255	0~100%
	3	Tilt	000 255	0~100%
	4	Tilt Fine	000 255	0~100%
	5	Pan/Tilt Speed	000 255	0~100%
	6	Dimmer	000 255	0~100%
	7	Strobe	000 009 010 255	No Function 00~20 Hz
	8	Zoom	000 255	0~100%
	9	Control	000 019 020 039 040 059 060 079 080 099 100 119 120 139 140 149 150 159 160 169 170 179 180 199 200 219 220 235 236 239 240 243 244 247 248 251 252 255	No Function Pan/tilt black activation Pan/tilt black deactivation Automatic fan speed Slow fan speed Normal fan speed High fan speed Auto program 1 (3 s activation delay) Auto program 2 (3 s activation delay) Test (3 s activation delay) Custom program (3 s activation delay) No Function Reset (3 s activation delay) No Function DIM0 (3 s activation delay) DIM1 (3 s activation delay) DIM2 (3 s activation delay) DIM3 (3 s activation delay) DIM4 (3 s activation delay)
	10	Red 1	000 255	0~100%
	11	Green 1	000 255	0~100%
	12	Blue 1	000 255	0~100%
	13	White 1	000 255	0~100%
	14	Red 2	000 255	0~100%

15	Green 2	000	255	0~100%
16	Blue 2	000	255	0~100%
17	White 2	000	255	0~100%
18	Red 3	000	255	0~100%
19	Green 3	000	255	0~100%
20	Blue 3	000	255	0~100%
21	White 3	000	255	0~100%

DMX Values (Cont.)

PERSON5	Channel	Function	Value		Percent/Setting
	1	Pan	000	255	0~100%
	2	Pan Fine	000	255	0~100%
	3	Tilt	000	255	0~100%
	4	Tilt Fine	000	255	0~100%
	5	Pan/Tilt Speed	000	255	0~100%
	6	Dimmer	000	255	0~100%
	7	Dimmer Fine	000	255	0~100%
	8	Strobe	000	009	No Function
			010	255	00~20 Hz
	9	Zoom	000	255	0~100%
	10	Control	000	019	No Function
			020	039	Pan/tilt black activation
			040	059	Pan/tilt black deactivation
			060	079	Automatic fan speed
			080	099	Slow fan speed
			100	119	Normal fan speed
			120	139	High fan speed Auto program 1 (3 s activation delay)
			140	149	Auto program 2 (3 s activation delay)
			150	159	Test (3 s activation delay)
			160	169	Custom program (3 s activation delay)
			170	179	No Function
			180	199	Reset (3 s activation delay)
			200	219	No Function
			220	235	DIM0 (3 s activation delay)
			236	239	DIM1 (3 s activation delay)
			240	243	DIM2 (3 s activation delay)
			244	247	DIM3 (3 s activation delay)
			248	251	DIM4 (3 s activation delay)
			252	255	
	11	Red 1	000	255	0~100%
	12	Red 1 Fine	000	255	0~100%
	13	Green 1	000	255	0~100%
	14	Green 1 Fine	000	255	0~100%
	15	Blue 1	000	255	0~100%
	16	Blue 1 Fine	000	255	0~100%
	17	White 1	000	255	0~100%
	18	White 1 Fine	000	255	0~100%

DMX Values (Cont.)

PERSON5 (cont.)

Channel	Function	Value	Percent/Setting
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19	Red 2	000 255	0~100%
20	Red 2 Fine	000 255	0~100%
21	Green 2	000 255	0~100%
22	Green 2 Fine	000 255	0~100%
23	Blue 2	000 255	0~100%
24	Blue 2 Fine	000 255	0~100%
25	White 2	000 255	0~100%
26	White 2 Fine	000 255	0~100%
27	Red 3	000 255	0~100%
28	Red 3 Fine	000 255	0~100%
29	Green 3	000 255	0~100%
30	Green 3 Fine	000 255	0~100%
31	Blue 3	000 255	0~100%
32	Blue 3 Fine	000 255	0~100%
33	White 3	000 255	0~100%
34	White 3 Fine	000 255	0~100%

5. Technical Information

Product Maintenance

To maintain optimum performance and minimize wear, you should clean this product frequently. Usage and environment are contributing factors in determining the cleaning frequency.

As a rule, clean this product at least twice a month. Dust build-up reduces light output performance and can cause overheating. This can lead to reduced light source life and increased mechanical wear.

To clean your product:

- Unplug the product from power.

- Wait until the product is at room temperature.

- Use a vacuum (or dry compressed air) and a soft brush to remove dust collected on the external vents and accessible internal components.

- Clean all external surfaces with a mild solution of non-ammonia glass cleaner or isopropyl alcohol.

- Apply the solution directly to a soft, lint-free cotton cloth or a lens cleaning tissue.

- Wipe any dirt or grime to the outside edges of the lens surface.

- Gently polish the lens surfaces until they are free of haze and lint.

Always dry the external surfaces thoroughly and carefully after cleaning them.

Returns

You must send the product prepaid, in the original box, and with the original packing and accessories. CHAUVET® will not issue call tags. Call CHAUVET® and request a Return Merchandise Authorization (RMA) number before shipping the product. Be prepared to provide the model number, serial number, and a brief description of the cause(s) for the return. Clearly label the package with an RMA number. CHAUVET® will refuse any product returned without an RMA number.

Do not write the RMA number directly on the box. Instead, write it on a properly affixed label.

Once you have received the RMA number, include the following information on a piece of paper inside the box:

Your name
Your address
Your phone number
The RMA number
A brief description of the problem(s)

Be sure to pack the product properly. Any shipping damage resulting from inadequate packaging will be the customer's responsibility. FedEx packing or double-boxing are recommended.

CHAUVET® reserves the right to use its own discretion to repair or replace returned product(s).

Technical Specifications

Dimensions and Weight	Length	Width	Height	Weight
	11.6 in (297 mm)	10.6 in (270 mm)	14.5 in (369 mm)	22 lb (10 kg)

Note: Dimensions in inches rounded to the nearest decimal digit.

Power	Power Supply Type	Range	Voltage Selection
	Switching (Internal)	100~240 V, 50/60 Hz	Auto-ranging
	Parameter	120 V, 60 Hz	230 V, 50 Hz
	Consumption	322 W	304 W
	Operating	2.64 A	1.4 A
	Fuse	6.3 A, 250 V	6.3 A, 250 V
	Power Linking	5 products	9 products
	Power I/O	U.S./Worldwide	Europe
	Power input connector	Neutrik® powerCON® A	Neutrik® powerCON® A
	Power output connector	Neutrik® powerCON® B	Neutrik® powerCON® B
	Power cord plug	Edison (U.S.)	Local plug

Light Source	Type	Power	Lifespan
	LED	15 W	50,000 hours
Photo Optic	Color	Quantity	Current
	quad-color RGBW	19	1 A
	Parameter	Narrow	Wide
	Illuminance @ 5 m	3,046 lx	743 lx
	Beam angle	7°	25°
Thermal	Field angle	16°	37°
	Max. External Temperature	Cooling System	
	104 °F (40 °C)	Fan-Assisted Convection	
DMX	I/O Connectors	Connector Type	Channel Range
	3- and 5-pin XLR	Sockets	8,10,12,21,34
Ordering	Product Name	Item Code	UPC Number
	Q-Wash™ 419Z-LED	01010722	781462210700

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Outside the U.S., United Kingdom, or Ireland, contact your dealer. Follow their instructions to request support or to return a product. Visit our website for contact details.